

I claim:

1. (new): An electronic game system comprising:
 - (a) a first game apparatus operable to generate portions of first digital data representing pictures of a first player-controlled object having plural body parts rendered as textured polygons moving in a first simulated 3-dimensional game world for display on a display device;
 - (b) a portable game system having a discrete display device and at least one processor for generating first and second picture data representing a second player-controlled object having plural body parts rendered as textured polygons moving in a second simulated 3-dimensional game world viewed from corresponding first and second variable viewpoints for display on said discrete display device; and
 - (c) a digital data transmission link for transferring digital data from said first game apparatus to said portable game system to cause said generating and display of said first and second picture data corresponding to said first and second variable viewpoints in said second simulated 3-dimensional game world.
2. (new): The system of claim 1, further comprising means for displaying pictures in stereoscopic 3-dimensions on said discrete display device, wherein said first and second picture data represent views of said 3-dimensional game world separately observable on said discrete display device by a player's left eye and right eye respectively.

3. (new): The game system of claim 1, wherein said discrete display device is autostereoscopic.
4. (new): The game system of claim 1, wherein said discrete display device comprises a lenticular optic device.
5. (new): The game system of claim 1, wherein said discrete display device comprises a parallax barrier.
6. (new): The game system of claim 5, wherein said parallax barrier provides electrically switchable monoscopic (2-D) and stereoscopic (3-D) displays.
7. (new): The game system of claim 1, wherein said first and second simulated game worlds are the same game world.
8. (new): The game system of claim 1, wherein said first and second player-controlled objects are the same object.
9. (new): The game system of claim 1, wherein at least one of said first and second player-controlled objects is a human-like character.
10. (new): The game system of claim 1, wherein at least one of said first and second player-controlled objects is an animal-like character.

11. (new) : The game system of claim 1, wherein said transferred digital data contains at least a program of instructions for execution in said processor in said portable game system.
12. (new) : The game system of claim 1, wherein said first game apparatus is a second portable game system which comprises a second discrete display device for displaying said first digital data representing pictures of said first player-controlled object in accordance with digital data received through said data transmission link from the portable game system specified in claim 1.
13. (new) : The game system of claim 1, further comprising a disk reader in said first game apparatus for reading said transferred digital data from an optically coded disk for transmission through said data transmission link to said portable game system.

14. (new) : A method of operating a first game apparatus digitally linked to a portable game system having a discrete display device, the method comprising the following steps:
- (a) generating in said first game apparatus portions of first digital data representing pictures of a first player-controlled object having plural body parts rendered as textured polygons moving in a first simulated 3-dimensional game world for display on a display device;
 - (b) transferring digital data from said first game apparatus to a processor in said portable game system; and
 - (c) processing said transferred digital data in said processor to cause generation in said portable game system of first and second picture data representing a second player-controlled object having plural body parts rendered as textured polygons moving in a second simulated 3-dimensional game world viewed from corresponding first and second variable viewpoints for display on said discrete display device in accordance with said transferred digital data.
15. (new) : The method of claim 14, wherein said discrete display device is operative to display pictures in stereoscopic 3-dimensions, and wherein said first and second picture data represents views of said 3-dimensional game world separately observable on said discrete display device by a player's left eye and right eye respectively.

16. (new) : The method of claim 14, wherein said discrete display device is autostereoscopic.
17. (new) : The method of claim 14, wherein said discrete display device comprises a lenticular optic device.
18. (new) : The method of claim 14, wherein said discrete display device comprises a parallax barrier.
19. (new) : The method of claim 18, wherein said parallax barrier provides electrically switchable monoscopic (2-D) and stereoscopic (3-D) displays.
20. (new) : The method of claim 14, wherein said first and second simulated game worlds are the same game world.
21. (new) : The method of claim 14, wherein said first and second player-controlled objects are the same object.
22. (new) : The method of claim 14, wherein at least one of said first and second player-controlled objects is a human-like character.
23. (new) : The method of claim 14, wherein at least one of said first and second player-controlled objects is an animal-like character.

24. (new): The method of claim 14, wherein said transferred digital data contains at least a program of instructions for execution in said processor in said portable game system.
25. (new): The method of claim 24, wherein said transferred program of instructions is read from an optically coded disk in said first game apparatus.
26. (new): The method of claim 14, wherein said first game apparatus is a second portable game system having a second discrete display device that displays said first digital data representing pictures of said first player-controlled object in accordance with digital data transferred from the portable game system specified in claim 14 to said second portable game system.

27. (new): A data carrier for use with a game system that has a first processor that generates picture data representing a first player-controlled object, the data carrier carrying game program instructions comprising:
- (a) first game instructions that cause said first processor to generate said picture data representing said player-controlled object having plural body parts rendered as textured polygons moving in a first simulated 3-dimensional game world for display on a display device; and
 - (b) second game instructions that cause said first processor to initiate transfer of digital data to a portable game system having a discrete display device and to cause generation in a second processor in said portable game system of first and second picture data representing a second player-controlled object having plural body parts rendered as textured polygons moving in a second simulated 3-dimensional game world viewed from corresponding first and second variable viewpoints for display on said discrete display device.
28. (new): The data carrier of claim 27, wherein said discrete display device is operative to display pictures in stereoscopic 3-dimensions, and wherein said first and second picture data represents views of said 3-dimensional game world separately observable on said discrete display device by a player's left eye and right eye respectively.

29. (new): The data carrier of claim 27, further comprising third game instructions that cause said first processor to initiate transfer of program instructions to said portable game system for execution in said second processor during generation of said first and second picture data.
30. (new): The data carrier of claim 29, further comprising said transferred program instructions.
31. (new): The data carrier of claim 27, wherein said first and second simulated game worlds are the same game world.
32. (new): The data carrier of claim 27, wherein said first and second player-controlled objects are the same object.
33. (new): The data carrier of claim 27, wherein said data carrier is an optically coded disk.
34. (new): The data carrier of claim 27, wherein said data carrier is a semiconductor memory.
35. (new): The data carrier of claim 27, wherein said game system is a second portable game system having a discrete display device for displaying said first player-controlled object.

36. (new) : A portable game system comprising:
- (a) a housing arranged to be held in a player's hands during use;
 - (b) a discrete display device in said housing;
 - (c) a first processor for generating data representing a 3-dimensional player-controlled object having plural body parts moving in a simulated 3-dimensional game world;
 - (d) a manually operable direction control device in said housing for controlling the direction of movement of said 3-dimensional player-controlled object in said simulated 3-dimensional game world; and
 - (e) a graphics coprocessor for rendering said 3-dimensional player-controlled object as texture mapped polygons moving in said simulated 3-dimensional game world viewed from first and second variable viewpoints for display on said discrete display device.
37. (new) : The system of claim 36, further comprising means for displaying pictures in stereoscopic 3-dimensions on said discrete display device, wherein said texture mapped polygons represent views from said first and second viewpoint of said 3-dimensional player-controlled object separately observable on said discrete display device by a player's left eye and right eye.